

**REMARKS**

Claims 1-13 are presented for examination. Claims 1, 4, 7, 10 and 13 are allowed. Claims 5, 6, 8, 9, 11 and 12 are found allowable subject to being rewritten in independent form.

**REJECTIONS UNDER 35 U.S.C. § 103**

Claims 2-3 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Sourgen et al. in view of Reichert et al.

This rejection is respectfully traversed for the following reasons.

**Claim 2** recites a data storage apparatus comprising a scrambling circuit for converting an input signal to a desired format, and a storage device for storing converted data. The claim requires the scrambling circuit to be constituted by a rewritable device.

The Examiner indicates that Sourgen does not teach a scrambling circuit for converting an input signal to a desired format, and a storage device for storing converted data.

However, it appears that the Examiner meant that Sourgen teaches this arrangement.

Further, the Examiner admits that Sourgen does not teach that the scrambling circuit is constituted by a rewritable device.

Reichert is relied upon for disclosing the scrambling circuit constituted by a rewritable device. In particular, the Examiner contends that Reichert discloses an address scrambling circuit including RAMs 150 and 152 (FIG. 2), selectors 154 and 156, and buses 158 and 160.

The Examiner concludes that it would have been obvious to modify the teaching of Sourgen “by implementing the permutation circuit DBr using RAMs as taught by Reichert.”

The Examiner’s conclusion of obviousness is respectfully traversed for the following reasons.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to provide a reason why one having ordinary skill in the art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or inference in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. *Uniroyal, Inc. v. Rudkin-Wiley*, 837 F.2d 1044, 5 USPQ 2d 1434 (Fed. Cir. 1988); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.d 281, 227 USPQ 657 (Fed. Cir. 1985); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 221 USPQ 929 (Fed. Cir. 1984); *In re Sernaker*, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983).

These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

The Examiner has failed to provide the requisite reasons for modifying Sourgen and thus to establish a *prima facie* case of obviousness.

In particular, the Examiner asserts that a person skilled in the art would have been motivated to modify Sourgen “as a matter of choice because it would perform the same scrambling function.” However, no reason for modifying Sourgen was provided.

The Examiner should recognize that the fact that the prior art *could* be modified so as to result in the combination defined by the claims would not have made the modification obvious unless the prior art suggests the desirability of the modification. *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986). In the absence of such a prior art suggestion for modification of the references, the basis of the rejection is no more than inappropriate hindsight reconstruction using applicant's claims as a guide. *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967).

It is noted that Sourgen teaches that its arrangement performs a scrambling function. Therefore, one skilled in the art would have no reason to modify it to perform the same function.

Moreover, Reichert discloses that RAMs 150 and 152 of X and Y address scrambling circuits act as look up tables between physical and logical X and Y addresses (col. 6, lines 43-45).

On the other side, Sourgen teaches scrambling by permutation of data bits using permutation circuits DBr2 and DBr3. Sourgen does not disclose X and Y address scrambling. Therefore, its arrangement does not need look up tables between physical and logical X and Y addresses.

Accordingly, one skilled in the art would not be motivated to modify Sourgen by “implementing the permutation circuit DBr using RAMs,” as the Examiner suggests.

Further, one skilled in the art would realize that if Sourgen were modified to include lookup tables between physical and logical X and Y addresses in permutation circuits of Sourgen, the Sourgen arrangement would be unable to perform data permutation.

However, it is well settled that if proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Therefore, there is no suggestion or motivation to make the modification proposed by the Examiner.

Accordingly, Applicant submits that the lack of any motivation for the proposed combination of references to arrive at the claimed invention undermines the basis for the Examiner's rejection of claim 2 under 35 U.S.C. § 103.

**Claim 3** dependent from claim 2 recites that the scrambling circuit includes:

- a plurality of conversion circuits each converting said input signal according to different rules; and

- a selector for selecting one of signals output by said plurality of conversion circuits and supplying what is selected to said storage device.

The Examiner considers the RAMs 150 and 152 of Reichert to correspond to the claimed conversion circuits converting the input signal according to different rules.

However, as demonstrated above, the scrambling circuit of Sourgen cannot include the lookup tables between physical and logical X and Y addresses.

Moreover, claim 3 requires the same signal to be converted according to different rules. However, the RAM 150 converts physical X address into logical X address, and the RAM 152 converts physical Y address into logical Y address.

Therefore, they don't convert the same signal according to different rules.

Hence, even if Sourgen were combined to include the RAMs 150 and 152, the claimed invention would not result.

It is well settled that the test for obviousness is what the combined teachings of the references would have suggested to those having ordinary skill in the art. *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 226 USPQ 881 (Fed. Cir. 1985). In determining whether a case of *prima facie* obviousness exists, it is necessary to ascertain whether the prior art teachings appear to be sufficient to one of ordinary skill in the art to suggest making the claimed substitution or other modification. *In re Lalu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984).

As demonstrated above, the Examiner did not establish a *prima facie* case of obviousness under 35 U.S.C. § 103. Applicant, therefore, respectfully submits that the rejection of claims 2 and 3 under 35 U.S.C. § 103 is improper and should be withdrawn.

In view of the foregoing, and in summary, claims 2 and 3 are considered to be in condition for allowance. Favorable reconsideration of this application is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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